

CLAIMS

1. (Previously presented) A steering apparatus for a vehicle, comprising:
a steering shaft rotatable with a steering force applied from a steering wheel;
a cable unit for transmitting a rotational force with a circular output member
which is configured to rotate less than 180 degrees and a pair of cable wires, the output
member making a rotation in such a manner that the pair of the cable wires are pulled
relative to each other, the rotational force being transmitted from the steering shaft to a
tire-and-wheel; and
a speed reducing gear disposed between the steering shaft and the cable unit.
2. (Original) The steering apparatus as claimed in claim 1, in which the speed
reducing gear comprises a bevel gear which is connected to a peak end of the steering
shaft.
3. (Withdrawn) The steering apparatus as claimed in claim 1, in which the speed
reducing gear comprises a worm gear.
4. (Withdrawn) The steering apparatus as claimed in claim 3, in which
the worm gear has a spiral teeth section, and an arc teeth section which is
integrated with the output member.
5. (Withdrawn) The steering apparatus as claimed in claim 1, in which the speed
reducing gear comprises a rack gear and a pinion gear.
6. (Withdrawn) The steering apparatus as claimed in claim 5, in which the rack gear
is integrated with the output member which is a rotating member.
7. (Currently amended) A steering apparatus comprising:
a steering shaft rotatable with a steering force applied from a steering wheel;
a cable unit for transmitting a rotational force with an output member and a pair
of cable wires, the output member making a rotation in such a manner that the pair of

[[the]] cable wires are pulled relative to each other, the rotational force being transmitted from the steering shaft to a tire-and-wheel steering mechanism; and

a speed reducing gear disposed between the steering shaft and the cable unit,
and in which wherein:

the cable unit has:

the output member [[which]] is connected to the speed reducing gear and is rotatably mounted on a spindle, [[and]]

the pair of [[the]] cable wires each ~~of which~~ has a first end section connected to the output member, and a second end section operatively connected to the tire-and-wheel steering mechanism, and wherein:

the cable unit further has a first bearing for bearing a first end of the spindle and a second bearing for bearing a second end of the spindle opposite to the first end of the spindle, the second bearing being disposed inside the output member.

8. (Original) The steering apparatus as claimed in claim 2, in which the bevel gear connected to the peak end of the steering shaft is a drive bevel gear having a gear teeth section,

the speed reducing gear further comprises a follower bevel gear having a gear teeth section meshing with the gear teeth section of the drive bevel gear, and

the follower bevel gear defines an axis substantially perpendicular to an axis of the steering shaft.

9. (Previously presented) The steering apparatus as claimed in claim 7, in which an elastic member is disposed between the output member and the second bearing.

10. (Original) The steering apparatus as claimed in claim 8, in which the follower bevel gear is larger in diameter than the drive bevel gear.

11. (Original) The steering apparatus as claimed in claim 7, in which the output member is formed with a sustaining groove for sustaining the second bearing.

12. (Original) The steering apparatus as claimed in claim 9, in which the elastic member is a rubber member which elastically abuts on an inner race of the second bearing so as to push the spindle with a tightening force applied from a nut.
13. (Previously presented) The steering apparatus as claimed in claim 7, in which the output member is an output pulley, and the first bearing is a first ball bearing while the second bearing is a second ball bearing.
14. (Original) The steering apparatus as claimed in claim 8, in which the output member is integrated with the follower bevel gear.
15. (Withdrawn) The steering apparatus as claimed in claim 1, in which the speed reducing gear comprises a drive spur gear and a follower spur gear disposed alongside the drive spur gear, the follower spur gear being larger than the drive spur gear in diameter, and the follower spur gear is supported with a spindle having a peak end provided with the output member which is an output pulley in a form of a double-disk.
16. (Withdrawn) The steering apparatus as claimed in claim 1, in which the speed reducing gear comprises a gear shaft formed with a spiral teeth section, and a loop gear formed with a teeth section, the loop gear is rotatably supported with a spindle having an extension section, and the output member which is an output pulley is formed with a cylindrical section through which the extension section penetrates for fixation.
17. (Currently amended) A steering apparatus for a vehicle, comprising:
a steering shaft inserted into a steering column having a backward end connected to a steering wheel, and a peak end opposite to the backward end;
a speed reducing gear disposed at the peak end of the steering column; and

a cable unit having a first end connected to the speed reducing gear and a second end connected to a tire-and-wheel by way of a rack-and pinion of the steering apparatus, the cable unit comprising:

a circular output member connected to the speed reducing gear, the circular output member being configured to rotate less than 180 degrees, and

a pair of cable wires each of which has a first end section connected to the output member and a second end section connected to the rack-and-pinion of the steering apparatus.

18. (Previously presented) A steering apparatus as claimed in claim 1, wherein the circular output member comprises:

an arcuate slot having first and second ends, and

a pin which is stationary with respect to the circular output member and which is configured to engage the first and second ends to limit the amount of rotation of the circular output member.

19. (Currently amended) A steering apparatus as claimed in claim 17, wherein the circular output member comprises:

an arcuate slot having first and second ends, and

a pin which is stationary with respect to the circular output member and which is configured to engage the first and second ends of the arcuate slot to limit the amount of rotation of the circular output member.